27 – 29 March 2022
The Old Fish Market ▪ Ghent ▪ Belgium

PROGRAM OVERVIEW

update March 24, 2022

'Developing Next Generation Crops for Healthy Society '

The most influential trends that will affect agricultural research, crop innovation and value chain strategies will be addressed including precision and indoor farming, artificial intelligence, consolidation, economic growth and sustainability.

15:00-17:00 **Registration desk open**

15:00-17:00 **Welcome reception and social event**

Canal tour! Relax and enjoy the view of the city from the river. Bask in the fascinating history of Ghent as your professional tour guide shares with you all the history and secrets of the city. See the beautiful architecture in Ghent and view the impressive walls of the Castle of Counts.

17:00-17:05 **Welcome** by chair **An Michiels**, Director AgKnowledge Partnering (Belgium)

17:05-17:15 **Opening** by **Dr. Arjen van Tunen**, CEO Keygene (Netherlands) and **Prof Dr Dirk Inze,** Science Director VIB-UGent Center for Plant Systems Biology (Belgium)

17:15-19:00 **Plenary program**

The Sunday evening program will focus on the impact of climate change on the development and production of crops.

Dr. Jon Van Wagenen PhD, Senior Scientist AeroFarms (US)

Environmental control for better plants and better plants for controlled environments

Jon will highlight AeroFarms achievements to date in using environmental control to produce exceptional plants. Furthermore, the presentation will provide perspective on how the interaction between genetics and environment offers an opportunity to breed crops for vertical farms.

Anker Sørensen, Vice President New Business KeyGene (NL)

Adapting crops to changing environments: Genetic diversity & sustainable banana production

The presentation will describe in general how KeyGene is approaching the challenges caused by fast changing environments. Focussed on crop improvement to address these challenges. A few examples on this theme of ongoing research will be given. The bulk of the presentation will further focus on the banana example, explaining the market of this important fruit and it's challenges with respect to sustainable production. In particular I will discuss the way KeyGene and our partners in the newly established R&D company Yelloway, are approaching the breeding of novel banana varieties that will be able to face the challenges.

Dr. Hidde Boersma, Science journalist, essayist and documentary film maker
A different kind of green: changing the narrative on sustainable food production
For the general public there is only way forward to more sustainable food production. It is the story of the classical environmentalist: farm more in harmony with nature, extensify and eschew from using more of the modern techniques that got us in the problems in the first place. Recent science however, suggests this path might actually worsen the case. To save biodiversity and stave off of an even hotter climate, it is actually best to intensify food production of the most fertile fields, to make more space for nature. How is it possible that this new story hardly leaves academia, and how do we change the narrative on what sustainable food production actually entails?

19:00-20:00 **Conference buffet**

20:00-20:45 **Closing keynote lecture**

Dr. Manfred Aben, Global VP S&T Foods & Refreshment / Site Leader Unilever Foods Innovation Centre Wageningen (NL)
Food as a Force for Good – Driving the Food Transition Together

- The food system is broken – Unilever's Future Food Commitments
- Doing well by doing good: Purpose and Sustainability are key drivers for growth and resilience
- If you think you can do it alone, you are not thinking big enough
- Working across the value chain and beyond – ecosystem innovation
- Challenges we need to address – together.

20.45-21:30 **Dessert and coffee/tea buffet**

Conference day 2 - Monday March 28, 2022

08:30 **Registration desk open**

09:00-09:45 **Plenary program** – keynote opening lecture

Hendrik van Asbroeck, Partner Astanor Ventures (Belgium)
´Revolutionizing agrifood by investing in impact´

- *The case for revolutionizing the agrifood sector – A discussion of the environmental and social impacts of the global agrifood sector and the tech innovations that can change the game*
- *Impact investing as a tool to accelerate change – Overview of Astanor's approach to impact investing (investment principles, impact measurement)*
- *Highlight a few innovative, impact-driven agrifood tech companies*

09:45-10:30 **Break**

10:30-12:30 **PARALLEL SESSIONS PART 1**

1A. Healthy soils for healthy crops for healthy humans
Naturally occurring micro-organisms or products derived thereof, the biologicals, provide attractive alternative to agro chemicals. In this session examples of biologicals are presented that can be used to generate new ways of sustainable crop production.

Chair: **Jenny Neukermans**, valorization manager KU Leuven (Belgium)

Presentations:

- Student: **Dr. Thijs Van Gerrewey**, Biostimulant Project Coordinator at HortiCell lab and the Center for Microbial Ecology and Technology (CMET), Faculty of Bioscience Engineering, Ghent University (Belgium)
- **Dr. Mikael Courbot**, Chief Technology Officer Micropep Technologies (France)
- **Dr. Isabel Vercauteren**, CEO Aphea.Bio (Belgium)
- **André Negreiros**, Seed Applied Technologies Leader Corteva (Switzerland)

1B. Crop diversity for human health benefits
Crops can be used not only for food production but also for the production of plant derived compounds that are beneficial for human health. In this session the latest developments on this are presented.

Chair: **Yadira Olvera Carrillo PhD**, Business Development Manager VIB (Belgium)

Presentations:

- Student: **Dr. Ying Liu**, Postdoc Researcher, Horticulture and Product Physiology Group at Wageningen University and Research (Netherlands)
- **Dr. ing. Matthew de Roode**, Manager Innovation Sensus (NL)
- **Dr. Ryan Rapp**, Chief Technology Officer Pairwise Plants (United States)
- **Juan Sanchez Tamburrino Ph.D., MBA,** Vice President of Research and Development at 22nd Century Group, Inc. (United States)

12.30-13:30 **Lunch, networking and exhibition**

13:30-15:30 **PARALLEL SESSIONS PART 2**

2A. New crops for sustainable & healthy products
The development of more effective genomic, phenomic and data science technologies can now be deployed for the genetic improvement of smaller, orphan & new crops. In this session the development of new crops for sustainable & healthy products are presented.

Chair: **Mark van Haaren**, Global Head Licensing Vegetables at Syngenta Crop Protection AG (Switzerland)

Presentations:
- PhD Student: **Evelien Waegneer PhD**, ILVO and affiliation KU Leuven (Belgium)
- **Benjamin Laga**, CEO and Founder Protealis (Belgium)
- **Ying Shao**, Co-Founder and CEO at Plantik Biosciences (France)
- **Hein Kruyt**, CEO Solynta (Netherlands)

2B. Adaptation of crops to diseases & environmental changes
Climate change has an increasing and profound effect on the environment in which crop plants are growing and in which they produce. In this session strategies that will adapt our crops to the new environments are presented.

Chair: **An Michiels**, Director AgKnowledge Partnering (Belgium)

Presentations:
- Postdoctoral Researcher: **Karen Kloth**, Wageningen University & Research (NL)
- **Irina Calic**, Postdoctoral Research Associate University of Cologne (Germany)
- **Dr. Fred van Ex**, Vice President Discovery and Product Design, Inari Agriculture N.V. (Belgium)
- **Dr. Jack Peart**, Chief Commercial Officer Tropic Biosciences (United Kingdom)

15:30-16:15 **Break**

16:15-17:45 **Plenary Pitch program**
The pitch program is supported by VIB and StartLife.
Hosted by **Tony Montoye**, Biotope program manager at VIB (Belgium)

Presentation by winner last edition CropIB 2019
Andre Moreira, CEO Novihum Technologies GmbH (Germany)

Innovator pitches by young-, promising- and/ or start-up innovators
6 Early stage companies will have the opportunity to present their venture, technology or business case in an elevator pitch of almost 7 minutes (PechaKhucha style).*

Pitching companies - *Curated by StartLife, the leading agrifoodtech accelerator in Europe*
- Radicle Crops (NL)
- PLANeT BIOTECH (ES)
- plant-DiTech (Israel)
- European Spatial Biology Center (ESBC nv) (Belgium)
- E-TERRY (Germany)
- Veridi Technologies (NL)

17:45-18:30 **Reception**

19:00-22:00 **Dinner experience**
Restaurant De Abt, Lange Kruisstraat 4, Ghent https://www.deabt.gent/en/

Conference day 3 - Tuesday March 29, 2022

08:30 **Registration desk open**

09:00-09:45 **Plenary program**

Dr. Arjen van Tunen, CEO KeyGene (Netherlands)
Understanding Fertilization for better seeds.
Arjen will present his vision on the application in plant breeding of new insights on genes involved in plant reproduction. Plant breeding depends, almost by definition, on the central process of fertilization and seed development. In the past years more and more knowledge has been gained at the molecular level. Which gene sets are important and which genes can be used to direct crosses and improve seed quality of new varieties?

09:45-10:30 **Break**

10:30-12:30 **PARALLEL SESSIONS PART 3**

3A. Artificial intelligence in agriculture
In many scientific and business sectors artificial intelligence that can cope with large amounts of data has been shown to produce new insights and strikingly ne leach and opportunities. In this session the (potential) impact of AI in agriculture is presented.

Chair: **Roeland van Ham**, VP Bioinformatics & Modeling KeyGene (NL)

Presentations:
- Student: **Lars van der Lely BSc.**, TU Delft (Netherlands)
- **Ouri Fischel**, Business Development Director at Agrematch LTD. (Israel)
- **Prof. dr. Steven Maenhout**, Director Progeno, Research group Predictive Breeding, Ghent University (Belgium)
- **Ingmar Wolff**, Co-Founder and CEO heliopas.ai GmbH (Germany)

3B. Global portfolio strategies in agri business
Hosted by BASF We create chemistry

Chair: **Erik Van Der Biezen PhD**, Innovation Manager

In the last 5 years the agrofood sector has become an economically highly attractive area for substantial investments. Various strategies to develop new companies and positions are presented.

Presentations:
- **Prof.Dr. Matty Demont**, Research Leader Markets, Consumers & Nutrition at CGIAR International Rice Research Institute (IRRI) (Philippines)
- **Dr. Bart Lambert**, Global Oilseeds Technology Lead at BASF Agricultural Solutions (Belgium)
- **Dr. Manuel Rosas**, Chief Scientific Officer at Planasa (US)
- **Mark van Haaren**, Global Head Licensing Vegetables at Syngenta Crop Protection AG (Switzerland)

12:30-13:30 **Lunch, networking and exhibition**

13:30-15:30 **PARALLEL SESSIONS PART 4**

4A. Robotics and drones for breeding- and production of crops
Hosted by vito remote sensing

Chair: **Jürgen Decloedt**, Business Development Remote Sensing

The use of new technologies always enables new breeding methods and approaches. In this session the power of robotics and drones for crop innovation and improvements are presented.

Presentations:
- **Sam Oswald**, R&D Data Scientist VITO Remote Sensing (Belgium)
- **Rick van de Zedde**, Project Manager WUR-Netherlands Plant Eco-phenotyping Centre (Netherlands)
- **Jonathan Berte**, Founder Robovision (Belgium)
- **Bram Tijmons**, CEO & co-founder at PATS Indoor Drone Solutions (Netherlands)

4B. Complementary advancements in science & technologies
From adjacent Science & Technologies many things can be learned and made applicable for use in agrofood and breeding. In this session developments are presented and it is investigated how those might advance agrofood and breeding.

Chair: **Nathalie van Orsouw**, VP Technology Development at KeyGene

Presentations:
- Student: **Denia Herwegh**, Predoctoral fellow at VIB-UGent (Belgium)
- **Sami Saarenpää**, Doctoral Student SciLifeLab Stockholm (Sweden)
- **Dr. Gerard Verbiest**, Assistant Professor / Tenure Track TU Delft (NL)
- **Prof.dr. Guido Grossman**, Heinrich-Heine University Düsseldorf (Germany)

15:30-16:15 Break

16:15-16:30 **Award ceremony winner ´best pitch´**

16:30-17:15 **Closing keynote lecture**

Prof Dr Dirk Inze, Science Director VIB-UGent Center for Plant Systems Biology (Belgium)
´Plant science for climate change and food security´
The world is experiencing an unprecedented climate crisis that requires urgent action at all fronts. Plant biology offers great opportunities both for adapting to climate change as well as for mitigating the accumulation of greenhouse gasses. I will discuss how, on a world-wide level, plant scientists address climate change and how new breeding tools, such as genome editing can contribute to it. There is an evident need for the further development of high yielding crops that are able to cope with environmental cues such as drought and high temperatures. However, crop yield and stress tolerance are governed by many interacting genes and are difficult traits to improve. I will illustrate with our research on maize that genome editing is offering unprecedented perspectives to tackle complex multi-genic traits such as yield and drought tolerance. Furthermore, genome editing also has the potential to accelerate the development of crops that maximally the mitigation of greenhouse gasses. Numerous concepts are being development ranging from plants with maximized CO2 fixing capabilities; (perennial) crops with deep root systems and an improved nitrogen use efficiency to crops that can serve as protein source to reduce meat consumption.

17:15-17:30 **Closing ceremony and announcement**

17:30-18:30 **Closing conference reception**

Note: the organisation keeps the right to make changes to the programme at any time.